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(54) 6-DOF TRACKING USING VISUAL CUES

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(57) ABSTRACT

Methods, systems, and computer program products are described for obtaining, from a first tracking system, an initial three-dimensional (3D) position of an electronic device in relation to image features captured by a camera of the electronic device and obtaining, from a second tracking system, an orientation associated with the electronic device. Responsive to detecting a movement of the electronic device, obtaining, from the second tracking system, an updated orientation associated with the detected movement of the electronic device, generating and providing a query to the first tracking system, the query corresponding to at least a portion of the image features and including the updated orientation and the initial 3D position of the electronic device, generating, for a sampled number of received position changes, an updated 3D position for the electronic device and generating a 6-DoF pose using the updated 3D positions and the updated orientation for the electronic device.

20 Claims, 10 Drawing Sheets

